



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/519,579	06/13/2005	Walter Trakowski	HM-612PCT	2489	
40570	7590	07/22/2010	EXAMINER		
Lucas & Mercanti LLP 475 Park Avenue South New York, NY 10016		WALTERS JR, ROBERT S			
		ART UNIT		PAPER NUMBER	
		1711			
		MAIL DATE		DELIVERY MODE	
		07/22/2010		PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/519,579	TRAKOWSKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ROBERT S. WALTERS JR	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 May 2010.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Status of Application***

Claim 1 is pending and presented for examination.

### ***Response to Arguments***

Applicant's arguments filed 5/20/2010 have been fully considered but they are not persuasive. The applicant argues that the references of record fail to teach a method wherein both an isolating gas layer and a conventional gas mixture are present. However, Cantacuzene clearly teaches the use of two gas layers (column 2, lines 51-59 and column 4, lines 21-26), wherein an isolating gas layer separates the zinc from the conventional gas mixture comprising hydrogen (column 2, lines 51-59, column 4, lines 21-26 and Figure 1). Therefore, the examiner maintains that the claim is obvious over the combination of references.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 1711

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cantacuzene (U.S. Pat. No. 6224692) in view of Sander et al. (U.S. Pat. No. 4228200).

Regarding claim 1, Cantacuzene teaches a method comprising guiding a metal strip through a furnace snout immersed in the metal bath and guiding the metal strip around a deflecting roller in the metal bath, such that the metal strip emerges from the metal bath at the top (abstract and Figure 1). Cantacuzene further teaches the furnace snout having two gas layers present, one an isolating gas between the metal bath and a first gas mixture (column 2, lines 51-59, column 4, lines 21-26 and Figure 1), wherein the isolating gas comprises an inert gas (column 2, lines 51-59), wherein the inert gas may be argon (column 1, lines 5-18). Cantacuzene

Art Unit: 1711

fails to explicitly teach using argon with admixtures of butane and/or propane as the isolating gas.

However, Sander teaches a method for controlling the metal coating of strips (abstract) in a metal bath, which may be a zinc bath (column 6, lines 24-27). Sander teaches the use of an atmosphere adjacent to the surface of the metal bath introduced across the width of the bath which is non-oxidizing and unreactive with the molten metal, which may be butane or propane (column 8, lines 29-38). Sander teaches that this metal bath serves to maintain the bath surface in a substantially clean condition (column 8, lines 52-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cantacuzene's method by utilizing argon with admixtures of propane and/or butane as the isolating gas. One would have been motivated to make this modification as one of ordinary skill in the art could have additionally added either butane or propane to Cantacuzene's inert gas (argon) layer with a reasonable expectation of success (note that both Cantacuzene and Sander teach the use of their gases over surfaces of molten zinc baths) and the predictable result of providing an isolating gas to suppress evaporation of zinc above the metal bath. Furthermore, one would have been motivated to make this modification as Sander teach that their gases will also provide a non-oxidizing environment above the zinc (see Sander at column 8, lines 36-37 and 52-56), therefore helping to alleviate zinc oxidation and deterioration of the zinc melt in the tank.

### ***Conclusion***

Claim 1 is pending.

Claim 1 is rejected.

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is (571)270-5351. The examiner can normally be reached on Monday-Thursday, 9:00am to 7:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 1711

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art Unit  
1711

/ROBERT S. WALTERS JR/  
July 19, 2010  
Examiner, Art Unit 1711